

REMARKS

The specification has been amended to update the "Statement of Related Cases."

Claims 1-29 are pending. Claim 24 has been amended to depend on claim 22, rather than 23. Claims 27-29 have been cancelled. Of the remaining claims, the Examiners states that claims 10-12, 14, and 24-26 would be allowable. Claims 1-9, 13, and 15-24 stand rejected under 35 U.S.C. §102(a)/(e) over Tomozumi, published U.S. Patent Application No. US 2003/0183811 ("Tomozumi"). Applicants request the Examiner to reconsider and withdraw the rejection for the following reasons.

Tomozumi describes a process in which a silicon substituent-containing organic non-linear molecule is combined with one or more silicon substituent-containing matrix-forming molecules to form a stock solution. The stock solution is then contacted with a solid catalyst to form a polymer matrix that includes the organic non-linear molecule. In Tomozumi's process, therefore, polymerization takes place in the presence of the organic non-linear molecule. This process is fundamentally different from applicants' process. As set forth in claim 1, applicants' process requires first forming a polymer by reacting an alkoxysilane, an (epoxy)alkylsilane, and a fluorinated alkoxysilane, and then, once the polymer has been formed, reacting the polymer with a non-linear optical chromophore having an alkoxysilyl group.

By first forming the polymer and then reacting the polymer with the non-linear optical chromophore, applicants' process avoids the "formability" (i.e., incompatibility) problem discussed in paragraph [0134] of Tomozumi. Specifically, Tomozumi is able to use no more than 0.25% by weight of a fluorinated alkyl silane reactant because greater amounts cause "formability" (i.e., incompatibility) problems. Applicants' process, however, does not suffer from the same problem because it uses a substantially different reaction sequence.

Tomozumi fails to describe the process set forth in applicants' claims. Rather, Tomozumi describes an entirely different process. Therefore, the rejection of claims 1-9, 13, and 15-24 should be withdrawn.


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Respectfully submitted,

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